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## PATENT ABSTRACTS OF JAPAN

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(21) Application number : 10-376386 (71) Applicant : TACHI S CO LTD  
 (22) Date of filing : 22.12.1998 (72) Inventor : KAMEI YASUHIKO

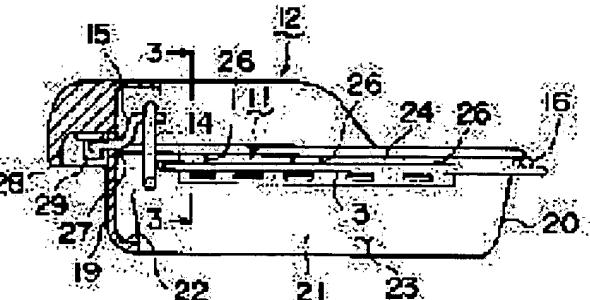
## (54) VEHICLE SHEET

## (57) Abstract:

PROBLEM TO BE SOLVED: To restrain backlash between a tray guide frame and an under tray by engaging right and left rail grooves with right and left rail wires, providing an under tray drawingly supported by a tray guide frame, and spreading out the right and left rail wires with right and left projections.

SOLUTION: An under tray 12 is drawingly supported by a tray guide frame 11 by engaging right and left rail grooves 24, 24 with right and left rail wires 13, 13. The right and left rail wires 13, 13 are spread by projections 26, 26... and are engaged with the right and left rail grooves 24, 24, and backlash occurring between them are absorbed and removed by the projections 26, 26....

Therefore, the under tray is supported on the tray guide frame always without backlash, and smoothly drawn or pushed. This has a wire frame structure, can be



inexpensively manufactured, and can easily apply to a space under a seat cushion.

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#### LEGAL STATUS

[Date of request for examination]

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CLAIMS

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[Claim(s)]

[Claim 1] A rail wire of right and left which separate from a seat cushion suitably caudad and are located, A front stopper wire which turns lockwiring ahead, is passed fixed and attached fixed at both ends between tips of ejection and a rail wire of the right and left at a slide rail side of right and left of a seat track, A tray guide frame assembled with a rear stopper wire which is passed fixed and attached in a slide rail side of the right and left fixed at both ends between the back end of a rail

backward to an outside wall surface of a side wall on either side by being extended in a position, A projection of right and left which are jutted out over an internal surface of a rail slot top of the right and left in a proper location of a cross direction, extend a rail wire of the right and left, and are made possible, A vehicle sheet which is arranged at a front wall side, and has a hook removed [ is hung and ] and made into the lockwiring, and is equipped with an undershirt tray which inserts a rail slot of the right and left in a rail wire of the right and left, and is supported by the tray guide frame withdrawal.

[Claim 2] A rail wire on either side which separates from a seat cushion suitably caudad, and is located, and is attached in a slide rail side of right and left of a seat track fixed by the back end, A front stopper wire which turns lockwiring ahead and is attached in a slide rail side of the right and left fixed at both ends in support of a tip of ejection and a rail wire of the right and left fixed, A tray guide frame assembled with a rear stopper wire passed fixed between the back end of a rail wire of the right and left, A rail slot of right and left by which a opening is carried out forward and backward to an outside wall surface of a side wall on either side by being extended in a position, A projection of right and left which are jutted out over a proper location of a cross direction by internal surface of a rail slot top of right and left of \*\*\*\*, extend a rail wire of the right and left, and are made possible, A vehicle sheet which is arranged at a front wall side, and has a hook removed [ is hung and ] and made into the lockwiring, and is equipped with an undershirt tray which inserts a rail slot of the right and left in a rail wire of the right and left, and is supported by the tray guide frame withdrawal.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[The field to which invention is related] This invention relates to the vehicle sheet with which the bottom of a seat cushion is equipped with an undershirt tray withdrawal.

[0002]

[Background of the Invention] Usually, with an automobile sheet with an undershirt tray, the the slide rail of right and left of the flange of right and left on the outside wall surface of a side wall of the right and left withdrawal with it. the time of pulling out the undershirt tray and pushing in -- \*\*\*\* with backlash -- the present condition is being unable to take smoothly.

[0003]

[Problem(s) to be Solved by the Invention] the technical problem of this invention -- an undershirt tray -- always -- with backlash -- \*\* -- a \*\* -- supporting -- having -- and with backlash -- \*\* -- a \*\* -- smooth -- pulling out -- moreover, it is in offer of a vehicle sheet of which pushing is made possible.

[0004]

[Corresponding Means for Solving the Problem and its Function] A rail wire of right and left which separate this invention from a seat cushion suitably caudad, and are located, A front stopper wire which turns lockwiring ahead, is passed fixed and attached fixed at both ends between tips of ejection and a rail wire of the right and left at a slide rail side of right and left of a seat track, A tray guide frame assembled with a rear stopper wire which is passed fixed and attached in a slide rail

A rail slot of right and left by which a opening is carried out forward and backward to an outside wall surface of a side wall on either side by being extended in a position, A projection of right and location of a cross direction, extend a rail wire of the right and left, and are made possible, It is

arranged at a front wall side and has a hook removed [ is hung and ] and made into the lockwiring. It has an undershirt tray which inserts a rail slot of the right and left in a rail wire of the right and left, and is supported by the tray guide frame withdrawal. A rail wire of the right and left is extended by projection of the right and left, and it controls with [ between the tray guide frame and its undershirt tray ] backlash.

[0005]

[Specific Example(s)] Based on the illustrated example for it to be specified and explain the vehicle sheet of this invention hereafter, drawing 1 thru/or drawing 3 The example 10 of the vehicle sheet of this invention materialized by the driver's seat with an undershirt tray of the passenger car which attaches a seat track is shown. The tray guide frame 11 with which excludes the seat cushion of the driver's seat 10, a seat back, a seat track, etc., and the driver's seat 10 is equipped especially, and its undershirt tray 12 are shown.

[0006] The rail wires 13 and 13 on either side with which that tray guide frame 11 separates from that seat cushion suitably caudad, and is located in this driver's seat 10, The front stopper wire 14 which projects lockwiring 15 ahead, and is passed fixed and attached fixed at both ends between the tips of the rail wires 13 and 13 of the right and left at the slide rail side of right and left of the seat track, It is assembled with the rear stopper wire 16 which is passed fixed and attached in the slide rail side of the right and left fixed at both ends between the back end of the rail wires 13 and 13 of the right and left. Moreover, the rail slots 24 and 24 on on either side where the opening of the undershirt tray 12 is carried out to the outside wall surfaces 23 and 23 of the side walls 21 and 21 on either side by being extended forward and backward in a position, in the proper location of a cross direction, it \*\*\*\*\*s to the internal surfaces 25 and 25 of the rail slot 24 and 24 top of the right and left -- having -- the rail wires 13 and 13 of the right and left -- push -- being large -- with the projections 26, 26, 26, 26, 26, and 26 of two or more right and left made possible It is arranged at a front wall 19 side, and has the hook 29 removed [ is hung and ] and made into the lockwiring 15.

[0007] The tray guide frame 11 is assembled by the framework by which the rail wires 13 and 13 of the right and left are welded to the front stopper wire 14 and the rear stopper wire 16. Moreover, since the drive side bearing brackets 17 and 17 on either side are welded to the both ends of the front stopper wire 14 and the commutator side bearing brackets 18 and 18 on either side are welded to the both ends of the rear stopper wire 16, respectively, the stop of the tray guide frame 11 is \*\*\*ed and carried out to the slide rail side of the right and left by the drive side bearing brackets 17 and 17 of the right and left, and the commutator side bearing brackets 18 and 18 of the right and left.

[0008] The rail wires 13 and 13 of the right and left are bent and used for U typeface from a long and slender wire, and the front stopper wire 14 and the rear stopper wire 16 are also bent by the predetermined form from a long and slender wire, and especially the front stopper wire 14 is used for the condition of an arm on the rail wires 13 and 13 of the right and left, welding it. Furthermore, the lockwiring 15 is welded to the front stopper wire 14.

[0009] The undershirt tray 12 formed the grip 28 in the front wall 19 in one in the storage

fabricated from resin, and arranges the hook 29 removed [ is hung and ] and made into the lockwiring 15 projected by the front wall 19 in the front face of a front wall 19 through a drilling opium poppy and its slot 27 in a slot 27 with the grip 28 down side fixed on the inferior surface of tongue of the grip 28.

[0010] The projections 26, 26, 26, 26, 26, and 26 of right and left of the plurality It \*\*\*\*\*s to the internal surface 25 of the rail slot 24 and 24 top of the right and left., as were shown in drawing 2 , and a predetermined gap is kept in the rail slots 24 and 24 of the right and left in the cross direction and it was shown in drawing 3 The so-called backlash which extends the rail wires 13 and 13 of the right and left, and absorbs with [ between the rail wires 13 and 13 and the rail slots 24 and 24 on the right and left of the right and left ] backlash is removed.

[0011] Moreover, in the undershirt tray 12, 20 is a posterior wall of stomach and 22 is a bottom wall.

[0012] Therefore, the undershirt tray 12 inserts the rail slots 24 and 24 of the right and left in the rail wires 13 and 13 of the right and left, and is supported by the tray guide frame 11 withdrawal. The rail wires 13 and 13 of the right and left can extend the undershirt tray 12 by the projections 26, 26, 26, 26, 26, and 26, and insert it in the rail slots 24 and 24 of the right and left, and it is set. Since the backlash produced among the rail wires 13 and 13 and the rail slots 24 and 24 on the right and left of the right and left is absorbed and removed by the projections 26, 26, 26, 26, 26, and 26, it pulls out smoothly and is pushed in. Moreover, in addition, adaptation of the tray guide frame 11 is easily attained to the space under the seat cushion that become the wire frame structure and manufacture becomes possible at a low price.

[0013] The tray guide frame 30 which structure is simplified further, and drawing 4 is lightweight-ized, and is manufactured at a low price is shown. Separate the tray guide frame 30 from the seat cushion suitably caudad, and it is located. The rail wires 31 and 31 on either side

stopper wire 32 in which lockwiring 33 is ahead attached fixed at both ends at the slide rail side of fixed, It is assembled with the rear stopper wire 34 passed fixed between the back end of the rail wires 31 and 31 of the right and left.

[0014] Moreover, as for 35 and 35, in the tray guide frame 30, a drive side bearing bracket, and 36 and 36 are commutator side bearing brackets.

[0015] This tray guide frame 30 is utilized like that tray guide frame 11 mentioned above.

[0016] For those who have the usual knowledge in the field of the technology in which this invention belongs, the contents of this invention originate in the property (nature) and essence (substance) of that invention, and are easily materialized by another mode accepted that it makes them inherent objective so that clearly from the example as which this invention previously explained with reference to the drawing was specified. Of course, the contents of this invention \*\*\* in the technical problem of that invention (be commensurate with), and are indispensable to formation of that invention.

[0017]

[Benefit(s) of the Invention] So that I may be understood from \*\*\*\* the vehicle sheet of this invention The rail wire of the right and left which separate from a seat cushion suitably caudad and are located, The front stopper wire which turns lockwiring ahead, is passed fixed and attached fixed at both ends between the tips of ejection and the rail wire of the right and left at the slide rail side of right and left of a seat track, The tray guide frame assembled with the rear stopper wire which is passed fixed and attached in the slide rail side of the right and left fixed at both ends between the back end of the rail wire of the right and left, The rail slot of the right and left by which a opening is carried out forward and backward to the outside wall surface of a side wall on either side by being extended in a position, The projection of the right and left which are jutted out over the internal surface of the rail slot top of the right and left in the proper location of a cross direction, extend the rail wire of the right and left, and are made possible, It is arranged at a front wall side and has the hook removed [ is hung and ] and made into the lockwiring. Since it has the undershirt tray which inserts the rail slot of the right and left in the rail wire of the right and left, and is supported by the tray guide frame withdrawal With the vehicle sheet of this invention, the rail wire of those right and left can extend by that projection, and is inserted in the rail slot of those right and left is absorbed by the projection, and it is removed. the undershirt tray -- always -- with backlash -- \*\* -- a \*\* -- the tray guide frame -- supporting -- having -- and -- Moreover, in addition, adaptation becomes [ consequently ] possible easily to the space under the seat cushion that pushing becomes possible, and the tray guide frame becomes the wire frame structure, and manufacture becomes possible at a low price. with backlash -- \*\* -- a \*\* -- smooth -- pulling out -- It becomes very useful for an automobile sheet, and practical.

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1] It is the decomposition perspective diagram having shown partially the example of the vehicle sheet of this invention materialized by the driver's seat with an undershirt tray of the passenger car which attaches a seat track.

[Drawing 2] It is the side elevation in which having carried out the cross section of the tray guide frame and undershirt tray which were shown in drawing 1 partially, and having shown them.

[Drawing 3] It is the cross section shown along with three to 3 line of drawing 2 .

[Drawing 4] It is the perspective diagram having shown the improved tray guide frame.

### [Description of Notations]

11 Tray Guide Frame

12 Undershirt Tray

13 Rail Wire

14 Front Stopper Wire

15 Lockwiring

16 Rear Stopper Wire

21 Side Wall

23 Outside Wall Surface

24 Rail Slot

25 Upper Internal Surface

26 Projection

30 Tray Guide Frame

31 Rail Wire

32 Front Stopper Wire

33 Lockwiring

34 Rear Stopper Wire

603

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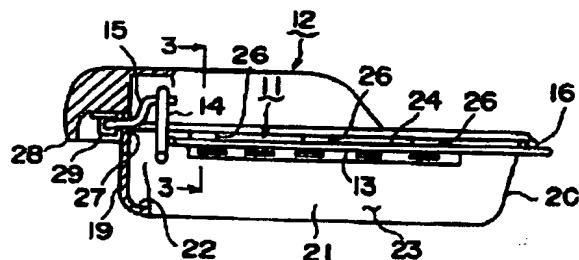
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## 【発明の名称】 乗り物シート

## (51)【要約】 (修正有)

【課題】 アンダートレイが常にがた付かずに支持され、円滑に引き出し、押し込み可能にされる。

【解決手段】 シート・クッションから下方に離れて位置される左右のレール・ワイヤ13, 13と、ロック・ワイヤ15を前方に向けて突き出し、レール・ワイヤの先端間に渡されて両端でシート・トラックの左右のスライド・レール側に取り付けられるフロント・ストッパー・ワイヤ14と、リア・ストッパー・ワイヤ16とで組み立てられるトレイ・ガイド・フレーム11と、左右の側壁21の外側壁面23に開口される左右のレール構24, 24と、レール構の上側の内壁面25に張り出されてレール・ワイヤを押し広げ可能にする左右の突起26と、フック29とを有し、レール・ワイヤに左右のレール構をはめ合わせてトレイ・ガイド・フレームに引き出し可能に支持されるアンダートレイ12とを備える。



## 【作用】

この発明は、シート・クッションから下方に適宜に離れて位置される左右のレール・ワイヤと、ロック・ワイヤを前方に向けて突き出し、そして、その左右のレール・ワイヤの先端間に固定的に渡されて両端でシート・トラックの左右のスライド・レール側に固定的に取り付けられるフロント・ストッパー・ワイヤと、その左右のレール・ワイヤの後端間に固定的に渡されて両端でその左右のスライド・レール側に固定的に取り付けられるリア・ストッパー・ワイヤとで組み立てられるトレイ・ガイド・フレームと、所定の位置において左右の側壁の外側壁面に前後に伸びて開口される左右のレール構と、前後方向の適宜の位置においてその左右のレール構の上側の内壁面に張り出されてその左右のレール・ワイヤを押し広げ可能にする左右の突起と、前壁側に配置されてそのロック・ワイヤに掛け外しされるフックとを有し、そして、その左右のレール・ワイヤにその左右のレール構をはめ合わせてそのトレイ・ガイド・フレームに引き出し可能に支持されるアンダートレイとを備え、そして、その左右の突起でその左右のレール・ワイヤを押し『以下省略』

## 【特許請求の範囲】

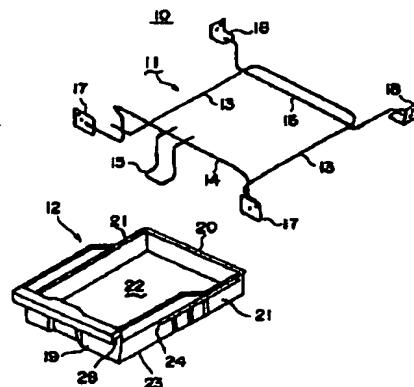
【請求項1】 シート・クッションから下方に適宜に離れて位置される左右のレール・ワイヤと、ロック・ワイヤを前方に向けて突き出し、そして、その左右のレール・ワイヤの先端間に固定的に渡されて両端でシート・トラックの左右のスライド・レール側に固定的に取り付けられるフロント・ストッパー・ワイヤと、その左右のレール・ワイヤの後端間に固定的に渡されて両端でその左右のスライド・レール側に固定的に取り付けられるリア・ストッパー・ワイヤとで組み立てられるトレイ・ガイド・フレームと、所定の位置において左右の側壁の外側壁面に前後に伸びて開口される左右のレール構と、前後方向の適宜の位置においてその左右のレール構の上側の内壁面に張り出されてその左右のレール・ワイヤを押し広げ可能にする左右の突起と、前壁側に配置されてそのロック・ワイヤに掛け外しされるフックとを有し、そして、その左右のレール・ワイヤにその左右のレール構をはめ合わせてそのトレイ・ガイド・フレームに引き出し可能に支持されるアンダートレイとを備える乗り物シート。

【請求項2】 シート・クッションから下方に適宜に離

特開2000-190783

れて位置され、そして、後端でシート・トラックの左右のスライド・レール側に固定的に取り付けられる左右のレール・ワイヤと、ロック・ワイヤを前方に向けて突き出させて、その左右のレール・ワイヤの先端を固定的に支持して両端でその左右のスライド・レール側に固定的に取り付けられるフロント・ストッパ・ワイヤと、その左右のレール・ワイヤの後端間に固定的に渡されるリア・ストッパ・ワイヤとで組み立てられるトレイ・ガイド・フレームと、所定の位置において左右の側壁の外側壁面に前後に伸びて開口される左右のレール溝と、前後方向の適宜の位置においてその左右のレール溝の上側の内壁面に張り出されてその左右のレール・ワイヤを押し広げ可能にする左右の突起と、前壁側に配置されてそのロック・ワイヤに掛け外しされるフックとを有し、そして、その左右のレール・ワイヤにその左右のレール溝をはめ合わせてそのトレイ・ガイド・フレームに引き出し可能に支持されるアンダートレイとを備える乗り物シート

【図1】



【図2】

